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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,831	02/21/2002	Louis L. Hsu	BUR920010134	7837

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GARDEN CITY, NY 11530

EXAMINER

TRAN, MAI HUONG C

ART UNIT	PAPER NUMBER
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2818

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,831

Applicant(s)

HSU ET AL.

Examiner

Mai-Huong Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 5,422,504 to Chang et al. in view of Rajeevakumar (5,658,816).

Regarding to claim 1, Chang et al. disclose a pair of programmable memory cells comprising a shared control gate 30/32, first and second floating gates 40 having respective gate regions located on respective sides of the control gate 30/32, and dielectric structures 34 located between the control gate and respective ones of the gates of the floating gates as set forth in cols. 4-6, and fig. 4. Chang does not disclose the control gate and the gates of the first and second floating gates are located within a space of a single lithographic square. Rajeevakumar teaches about the lithographic square as set forth in col. 2, lines 43-47.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the control gate and the gates of the first and second floating

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gates located within a space of a single lithographic square, as taught by Rajeevakumar in order to improve the cell area and to increase the device length (abstract).

Claim 2 is rejected under the same rationale set forth above to claim 1.

Claim 3 is rejected under the same rationale set forth above to claim 1.

Claim 4 is rejected under the same rationale set forth above to claim 1.

Claim 5 is rejected under the same rationale set forth above to claim 1.

Claim 6 is rejected under the same rationale set forth above to claim 1.

Claim 7 is rejected under the same rationale set forth above to claim 1.

Claim 8 is rejected under the same rationale set forth above to claim 1.

Claim 9 is rejected under the same rationale set forth above to claim 1.

Claim 10 is rejected under the same rationale set forth above to claim 1.

Claim 11 is rejected under the same rationale set forth above to claim 1.

Claim 12 is rejected under the same rationale set forth above to claim 1.

Claim 13 is rejected under the same rationale set forth above to claim 1.

Claim 14 is rejected under the same rationale set forth above to claim 1.

Claim 15 is rejected under the same rationale set forth above to claim 1.

Claim 16 is rejected under the same rationale set forth above to claim 1.

Claim 17 is rejected under the same rationale set forth above to claim 1.

Claim 18 is rejected under the same rationale set forth above to claim 1.

Claim 19 is rejected under the same rationale set forth above to claim 1.

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Conclusion

Any inquiry concerning this communication on earlier communications from the examiner should be directed to Mai-Huong Tran, (703) 305-1958. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Mai-Huong Tran


HOAI HO
PRIMARY EXAMINER